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CLAIMS

1. An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:
 - (a) the nucleotide sequence as set forth in any of SEQ ID NO: 1 and SEQ ID NO: 3;
 - (b) a nucleotide sequence encoding the polypeptide as set forth in any of SEQ ID NO: 2, SEQ ID NO: 4;
 - (c) a nucleotide sequence which hybridizes under moderately stringent conditions with one of:
 - (a) or (b); or
 - the nucleotide sequence 1-102 of SEQ ID NO: 1 or SEQ ID NO:3; or
 - the nucleotide sequence 319-606 of SEQ ID NO:1 or SEQ ID NO: 3; or
 - the nucleotide sequence 1027-1201 of SEQ ID NO: 3..
2. An isolated nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide which is at least about 85% percent identical to the polypeptide as set forth in any of SEQ ID NO: 2 or SEQ ID NO: 4, wherein the encoded polypeptide has an activity of the polypeptide set forth in any of SEQ ID NO: 2 or SEQ ID NO: 4.
3. An isolated nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide as set forth in any of SEQ ID NO: 2 or SEQ ID NO: 4, with at least one conservative amino acid substitution, wherein the encoded polypeptide has an activity of the polypeptide set forth in any of SEQ ID NO: 2 or SEQ ID NO: 4.
4. A vector comprising the nucleic acid molecule of any of claims 1, 2, or 3.
5. A host cell comprising the vector of claim 4.
6. The host cell of claim 5 that is a eukaryotic cell.
7. The host cell of claim 5 that is a prokaryotic cell.

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8. A process of producing an LGR6-SVs polypeptide comprising culturing the host cell of claim 5 under suitable conditions to express the polypeptide, and optionally isolating the polypeptide from the culture.
9. A polypeptide produced by the process of claim 8 or encoded by the nucleotide sequences of claim 1.
10. The process of claim 8, wherein the nucleic acid molecule comprises is promoter DNA other than the promoter DNA for the native LGR6-SVs polypeptide operatively linked to the DNA encoding the LGR6-SVs polypeptide.
11. The isolated nucleic acid molecule according to claim 2, wherein the percent identity is determined using a computer program selected from the group consisting of GAP, BLASTN, FASTA, BLASTA, BLASTX, BestFit, and the SmithWaterman algorithm.
12. A process for determining whether a compound inhibits LGR6-SVs polypeptide activity or LGR6-SVs polypeptide production comprising exposing a cell according to any of claims 5, 6, or 7 to the compound and measuring LGR6-SVs polypeptide activity or LGR6-SVs polypeptide production in said cell.
13. An isolated polypeptide comprising the amino acid sequence as set forth in any of SEQ ID NO: 2 or SEQ ID NO: 4 or a polypeptide with at least one conservative amino acid substitution, wherein the polypeptide has an activity of the polypeptide set forth in any of SEQ ID NO: 2 or SEQ ID NO: 4.
14. A mature form of the isolated polypeptide according to claim 13.
15. A selective binding agent or fragment thereof that specifically binds the polypeptide of any of claims 13 or 14.

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16. The selective binding agent or fragment thereof of claim 15 that specifically binds the polypeptide comprising the amino acid sequence as set forth in any of SEQ ID NO: 2 or SEQ ID NO: 4 or a fragment thereof.

17. The selective binding agent of claim 16 that is an antibody or a fragment thereof.

18. The selective binding agent of claim 17 that is a humanized antibody.

19. A method for treating, preventing, or ameliorating an LGR6-SVs polypeptide-related disease, condition, or disorder comprising administering to a patient an effective amount of a selective binding agent according to claim 16.

20. A selective binding agent produced by immunizing an animal with a polypeptide comprising an amino acid sequence of any of SEQ ID NO: 2 or SEQ ID NO: 4.

21. A hybridoma that produces a selective binding agent that is capable of binding a polypeptide according to any of claims 13 or 14.

22. A method of detecting or quantitating the amount of LGR6-SVs polypeptide using the anti-LGR6-SVs antibody or fragment of claims 17 or 18.

23. A composition comprising the polypeptide of any of claims 13 or 14 and a pharmaceutically acceptable formulation agent.

24. The composition of claim 23, wherein the pharmaceutically acceptable formulation agent is a carrier, adjuvant, solubilizer, stabilizer, or anti oxidant.

25. The composition of claim 23, wherein the polypeptide comprises the amino acid sequence as set forth in any of SEQ ID NO: 2 or SEQ ID NO: 4.

26. A polypeptide comprising a derivative of the polypeptide of any of claims 13 or 14.

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27. The polypeptide of claim 13 or 14 that is covalently modified with a water-soluble polymer.

28. The polypeptide of claim 27, wherein the water-soluble polymer is selected from the group consisting of polyethylene glycol, mono-methoxy polyethylene glycol, dextran, cellulose, poly-(N-vinyl pyrrolidone) polyethylene glycol, propylene glycol homopolymers, polypropylene oxide/ethylene oxide copolymers, polyoxyethylated polyols, and polyvinyl alcohol.

29. A composition comprising a nucleic acid molecule of any of claims 1, 2, or 3 and a pharmaceutically acceptable formulation agent.

30. The composition of claim 29, wherein said nucleic acid molecule is contained in a viral vector.

31. A viral vector comprising a nucleic acid molecule of any of claims 1, 2, or 3.

32. A fusion polypeptide comprising the polypeptide of any of claims 13 or 14 fused to a heterologous amino acid sequence.

33. The fusion polypeptide of claim 32, wherein the heterologous amino acid sequence is an IgG constant domain or fragment thereof.

34. A method for treating, preventing, or ameliorating a medical condition comprising administering to a patient the polypeptide of any of claims 13 or 14, or the polypeptide encoded by the nucleic acid of any of claims 1, 2, or 3.